EATING DISORDERS

Introduction

Eating disorders are a significant problem among children and adolescents in the United States. Anorexia nervosa is fatal 20% of the time, the highest death rate of any mental illness (Maier, Congressional Briefing, U.S. House of Representatives, 2003). Of the millions of Americans who are diagnosed annually with an eating disorder, an estimated 90% are adolescents and young women (Ice, as cited by Eating Disorders Coalition, 2005). Nearly half of all Americans know someone who has an eating disorder (South Carolina Department of Mental Health, 2004). Table 1 outlines the categories of eating disorders.

A study of children aged 8 to 10 found that half the girls and one-third of the boys are dissatisfied with their size (Harvard Eating Disorders Center, as cited by Lang, 2000). A sample of 1,373 high school students also showed that female high school students were four times more likely to try to lose weight than males (63 vs. 16%), whereas male high school students were three times more likely than females to try to gain weight (28 vs. 9%) (Rosen and Gross, as cited by National Eating Disorders Association, 2002).

The prevalence of eating disorders, particularly among adolescent females, has grown at an alarming rate during the last three decades (American Dietetic Association [ADA], 2001). The American Psychiatric Association (APA) (2000) has reported that eating disorders are now the third most common form of chronic illness in the adolescent female population, with an incidence of up to five percent. The APA study indicates that eating disorders are far less likely to occur in males (estimates of the male-female prevalence ratio range from 1:6 to 1:10).

The incidence of both anorexia and bulimia, however, is increasing among boys (Blinder, cited by International Eating Disorder Referral Organization, No Date). In fact, boys represent 19 to 30% of the younger patient populations having anorexia nervosa, suggesting that they are becoming increasingly vulnerable to eating disorders.

Adolescents with eating disorders face the risk of potentially irreversible medical complications (ADA, 2001). These complications include growth retardation when the eating disorder occurs prior to closure of the epiphyses, pubertal delay or arrest, impaired acquisition of peak bone mass during teenage years, and increasing the risk of osteoporosis in adulthood (ADA). Younger children in general become skeletal more quickly because they have less body fat than adolescents (Blinder, as cited by International Eating Disorder Referral Organization).

Typically, females who develop an eating disorder do so because of feelings of being overweight, while in actuality they are more likely to be a normal weight (Andersen, as cited by Something Fishy Website on Eating Disorders [SFWED], *e-Issues for Men with Eating Disorders,* 2005). Males who develop the disease are in fact typically more overweight medically (Andersen, as cited by SFWED, *e-Issues for Men with Eating Disorders*).

Table 1

Characteristics of Eating Disorders

- **ANOREXIA NERVOSA** – a disorder characterized by a distorted body image that causes individuals to see themselves as overweight even when they are dangerously thin. They often refuse to eat and exercise compulsively. They lose large amounts of weight and often suffer from extreme malnutrition.
- **BULIMIA NERVOSA** – a pattern of behavior in which the individual eats excessive quantities of food and then purges the body by using laxatives, enemas, or diuretics, vomiting, and/or exercising. They often act in secrecy and feel disgusted and ashamed as they binge, yet once their stomachs are empty again feel relieved of tension.
- **BINGE EATING DISORDER** – a disorder in which individuals experience frequent episodes of out-of-control eating. However, unlike those with bulimia, they do not purge their bodies of excess calories.

Sources: American Psychological Association, 1998 and Murphy & Cowan, 2001.

Precipitating Factors

It is often difficult to isolate the causal factors that precipitate development of eating disorders, although issues of body image are an integral part of all conversations about disorders and appear to be a major variable in predicting eating disorders in males. According to studies, the drive to be thin is a more significant predictor of both adolescent male and female eating disorders than their psychological and/or family profile (Wertheim et al., as cited by International Eating Disorder Referral Organization, No Date).

In many cases, however, the symptoms are brought on by a combination of psychological, physical, emotional and cultural pressures (ADA, 2001). Psychological factors include low self-esteem, feelings of helplessness, and intense dissatisfaction with appearance (APA, 1998). Furthermore, perfectionist or impulsive traits and rigid cognitive styles have been more frequently observed in these populations (American Psychological Association HealthCenter, 2000).

Dieting has the potential to trigger eating disorder in both males and females. One study indicates that up to 70% of high school males diet at some time to improve their appearance (as cited by Anorexia Nervosa and Related Eating Disorders, Inc., 2005). Forty percent of 9-year old girls have dieted. (Maier, 2003).

Studies have also noted a high prevalence of eating disorders among groups such as athletes, models, dancers, and performers, as well as young people who must limit food consumption due to diseases such as diabetes mellitus (ADA, 2001). One recent study concluded that girls participating in aesthetic sports versus non-aesthetic sports or no sports experienced higher weight concerns (Davison, Ernest, Birch, as cited by Natenshon, International Eating Disorder Referral Organization, 1999). Males who participate in sports as jockeys, wrestlers, and runners are also at increased risk of developing an eating disorder (Andersen, as cited by SFWED, *e-Issues for Men with Eating Disorders,* 2005). This suggests that the risk of developing such a disorder increases under circumstances in which dietary restraint or control of body weight assumes great importance.

The American Psychiatric Association has indicated that genetics may play a role in the development of maladaptive eating behaviors (2000). Specifically, first-degree female relatives and identical twin siblings of patients with anorexia or bulimia nervosa have higher rates of eating disorder diagnosis than the general population, suggesting the existence of a biological predisposition (APA). Inheritance patterns, however, remain unclear. Complex behavioral disorders such as anorexia and bulimia are likely to be caused by multiple genes and environmental factors (Eating Disorder Recovery Center, 2004).

Some researchers have found that abnormal serotonin metabolism may play a greater role in patients with bulimia than those with anorexia, suggesting biological differences in individuals with these two diagnoses (Murphy et al., 2001). A London-based study determined that people with anorexia were two times more likely to have variations in the gene regarding serotonin receptors, which in turn has an impact on appetite (BBC News, as cited by SFWED, *Genetics and Biology,* 2005).

In addition, factors such as dysfunctional families and relationships have been highly correlated to eating disorders (American Psychological Association HealthCenter, 1998). Individuals diagnosed with eating disorders are also more likely than the general population to have a history of abuse or trauma (ADA, 2001). Specifically, sexual abuse has been reported in 20 to 50% of patients with anorexia and bulimia nervosa. In addition, females with eating disorders who have suffered from sexual abuse also demonstrate higher rates of comorbid psychiatric conditions, which suggests that abuse may precipitate any number of psychological difficulties, especially those related to self-esteem (APA, 2000).

Diagnosis

Eating disorders are characterized by abnormal eating habits and cognitive distortions related to food and weight. The major characteristic of all eating disorders is a preoccupation with weight and excessive self-evaluation (APA, 2000). There is a relentless obsession with food that is accompanied by an intense fear of weight gain (ADA, 2001). Over a lifetime, an individual may meet the criteria for more than one of the disorders, which suggests a continuum of disturbed eating habits and body image (ADA).

Although the *DSM-IV* criteria call for the diagnosis of a specific eating disorder, the symptoms typically occur along a continuum between those of anorexia nervosa and bulimia nervosa, with many patients demonstrating a mixture of both disorders (APA, 2000). Consequently, as many as 50% of patients are diagnosed with eating disorders not otherwise specified (EDNOS) (ADA, 2001). The diagnosis of EDNOS appears to be particularly prevalent in adolescents. The classification encompasses individuals with symptoms of anorexia and bulimia nervosa who do not meet the threshold for official diagnosis, as well as individuals with binge eating disorder (ADA). Because eating disorders occur less often in males and because males having disorders are not characteristically thin or frail, health professionals may underdiagnose them (Weltzin, as quoted by Anorexia Nervosa and Related Eating Disorders [ANRED], 2002).

One of the first physical signs of an eating disorder can be changes in the mouth, including enlarged salivary glands, changed tooth color, tissue loss or lesions, heightened sensitivity to temperature, and tooth decay resulting from excessive brushing following vomiting (National Eating Disorders Association, 2005). Dental practitioners are often the first to identify signs of bulimia. According to the National Eating Disorders Association, studies indicate that tooth erosion is evident in approximately 89% of bulimic patients.

Clinicians should recognize that the diagnostic criteria for eating disorders may not be entirely applicable to adolescents, due to the wide variability in rate, timing, and magnitude of height and weight gain during puberty (ADA, 2001). Furthermore, the absence of menses, one of the diagnostic criteria for females with anorexia nervosa, is difficult to ascertain during early puberty due to the unpredictability of menstrual periods at this age (ADA). It is also important for clinicians to keep in mind that other medical disorders may account for the low body weight observed in young patients (Murphy et al., 2001). A complete medical assessment should be conducted to rule out any potential underlying medical conditions.

While eating disorders are considered to be psychiatric in nature, they are distinct in the fact that the nutrition and medical-related problems can be life-threatening (ADA, 2001). As noted by the National Institute of Mental Health (NIMH) (2001), of particular concern is the increased mortality rate of individuals having the diagnosis, particularly among those with anorexia nervosa. Specifically, the mortality rate for anorexics has been estimated at 0.56% per year, which is about 12 times higher than the annual death rate for all causes of death among females between the ages of 15 and 24. According to NIMH, the most common causes of death in anorexics are complications of the disorder, such as starvation, cardiac arrest, electrolyte imbalance, and suicide.

Comorbidity

Common comorbid disorders, as listed in Table 2, include mood disorders (i.e., depression), anxiety disorders (i.e., obsessive-compulsive disorder), personality disorders (i.e., borderline personality disorder), and substance abuse disorders (ADA, 2001). Researchers have yet to determine whether these conditions develop because of the isolation, stigma, and physiological changes brought on by eating disorders, or whether these conditions existed prior to the development of unhealthy eating habits (American Psychological Association HealthCenter, 1998).

One recent study of women with eating disorders suggests that women having recurring suicidal thoughts usually developed their disorders at younger ages (Ham, 2004). According to researchers conducting the Swiss National Science Foundation's two-year study, a majority of the participating patients had co-existing psychiatric disorders, as enumerated in Table 2. The researchers speculate

that the link between purging and suicidal attempts might point to a general lack of impulse control, whereas the higher prevalence of suicidal thoughts among anorexic patients suggests chronic self-harming behavior (Ham).

Table 2

Common Comorbid Disorders

- **Major depression or dysthymia** – diagnosed in 50 to 75% of patients with anorexia and bulimia nervosa
- **Obsessive-compulsive disorder** – as high as 25% in anorexia nervosa patients
- **Personality disorders** – occur in 42 to 75% of individuals diagnosed with eating disorders
- **Substance abuse disorders** – present in as many as 30 to 37% of bulimia patients and 12 to 18% of anorexics

Source: American Psychiatric Association (APA), 1998.

Very young patients frequently display obsessive behaviors and depression and are far more frequently diagnosed with anorexia than bulimia (APA, 2000).

General Treatment Principles

Individuals with eating disorders are among the least likely to seek treatment (American Psychological Association HealthCenter, 1998). However, once professional help is sought, these disorders can be successfully treated by an interdisciplinary team consisting of professionals from the medical, nutritional, and mental health disciplines (American Psychological Association HealthCenter). The earlier an eating disorder is identified and treated, the better the chances for recovery (Levine and Maine, 2002). It is important to recognize, however, that no single professional or discipline can provide all the necessary care that will improve the patient's chances of recovery (ADA, 2001). Rather, a comprehensive treatment plan should include medical care and monitoring, psychosocial interventions, nutritional counseling, and, when appropriate, medication management (NIMH, 2001).

The APA (2000) reports in its findings that treatment locations range from intensive inpatient settings, in which general medical consultation is readily available through partial hospital and residential programs, to varying levels of outpatient care. The weight, cardiac, and metabolic status of the patient are the most important physical parameters for determining the choice of setting. Patients who weigh less than 85% of their individually estimated healthy weights are likely to require a highly structured program and possibly 24-hour hospitalization. Hospitalization should occur before the onset of medical instability as demonstrated by severely abnormal vital signs, and should be based on psychiatric and behavioral grounds. Specifically, once a patient begins to display a rapid decline in food intake and a dramatic loss of weight despite other treatments, treatment providers should strongly consider hospitalization. Furthermore, the presence of external stressors or comorbid psychiatric problems may have a significant impact on this decision. More important than the particular treatment setting are the expertise and dedication of the members of the treatment team working with adolescents and their families (ADA, 2001).

Research has found that the sooner the disorder is recognized and treatment begins, the better the long-term outcome (NIMH, 2001). In general, adolescents have been found to have better outcomes than adults, with younger adolescents showing the most significant improvement (APA, 2000). It is important to note, however, that many patients display a limited response to treatment and will require long-term monitoring and intervention (U.S. Department of Health and Human Services, 1999). Anorexia nervosa, in particular, is very chronic in nature and may linger for five to ten years or even longer in some patients (Medscape Internal Medicine, 2006). Patients with anorexia may be particularly difficult to treat because they are highly resistant to weight gain (Murphy et al., 2001). They are likely to exhibit a fear of losing control, and therefore are likely to resist all nutritional rehabilitation efforts (Murphy et al.). Thus, ethical considerations may arise during the course of treatment, and involuntary hospitalization may be the necessary course.

While there are similarities in the physical illness precipitated by an eating disorder in males and females and in the initial medical treatment of the illness, gender diversity and sociocultural influences must be acknowledged in long-term treatment of the disorder in males (Andersen, as cited by SFWED, *e-Issues for Men with Eating Disorders,* 2005). There is a lack of treatment centers and therapy groups which offer services and treatments specially designed for males. As clinicians learn more about gender differences in eating disorders and gender-specific treatments, males can better expect to have their treatment needs addressed more fully (Eating Disorder Recovery Center, 2004).

ANOREXIA NERVOSA

Approximately 0.5 to 3.7% of females suffer from anorexia nervosa in their lifetime (NIMH, 2001). Researchers estimate that approximately one% of female adolescents have anorexia (ANRED, 2004). It is the third most common chronic illness among adolescents (South Carolina Department of Mental Health, 2004). Table 3 lists the general symptoms of anorexia nervosa.

Table 3

General Symptoms of Anorexia Nervosa

- Resistance to maintaining body weight at or above a minimally normal weight for age and height
- Intense fear of gaining weight or becoming fat, even when underweight
- Disturbance in perceptions of personal body weight, undue influence of body weight and shape in self-evaluation, or denial of the seriousness of the current low body weight

Source: National Institute of Mental Health (NIMH), 2001.

Anorexia nervosa affects predominantly female adolescents and people in their twenties, but there are reports of children as young as six affected by the disorder (ANRED, 2004). Statistics on the incidence of adolescent male anorexia are not readily available, although it is generally cited that society tends largely to expect strong and athletic as the body image for males, rather than the thin/waif-like image associated with females suffering from anorexia. One estimate suggests that 10% of the total population having anorexia and bulimia is male (ANRED).

Behavioral symptoms of anorexia nervosa may include being socially withdrawn, irritable, moody, and/or depressed (University of Virginia Health System, 2004). Table 4 lists several of the physical symptoms of anorexia nervosa.

Table 4

Physical Symptoms of Anorexia Nervosa

- Dry skin that when pinched and released, stays pinched
- Dehydration
- Abdominal pain
- Constipation
- Lethargy
- Dizziness
- Fatigue
- Infrequent or absent menstrual periods in females who have reached puberty
- Intolerance to cold temperatures
- Emaciation
- Development of lanugo (fine, downy body hair)
- Yellowing of the skin

Source: University of Virginia Health System, 2004 and National Institute of Mental Health (NIMH), 2001.

Treatment Methods

The treatment of anorexia nervosa generally occurs in three primary phases: (1) restoring the weight lost by severe dieting and purging; (2) treating psychological disturbances such as distorted self-perception, low self-esteem, and interpersonal issues; and (3) achieving long-term, full recovery (NIMH, 2001).

Evidence-based Treatments

According to the APA (2000), the treatment methods described in the following paragraphs are most commonly utilized for anorexia patients:

- *Nutritional rehabilitation* – Considerable evidence suggests that nutritional monitoring is effective in helping patients return to a healthy weight, as long as it is conducted in the proper setting to meet the particular patient's needs. For severely underweight patients, inpatient treatment has been found to be most effective. Clinicians have reported that as weight is restored, other eating disorder symptoms diminish; however, they often do not disappear completely.
- *Family psychotherapy* – The goal of family therapy is to involve family members in symptom reduction and to deal with family relational problems that may contribute to the anorexia. Some studies have found that family therapy may actually have greater long-term benefits than individual psychotherapy. However, these findings are limited to generalizations due to the fact that the patients in these studies often were not assigned to receive both family and individual treatment, which commonly occurs in practice.
- *Inpatient behavioral programs* – These programs commonly provide a combination of nonpunitive reinforcers, such as privileges linked to weight goals and desired behaviors. They have been shown to produce good short-term therapeutic effects.

- *Pharmacological treatments* – Medications are used most frequently after weight has been restored in order to maintain weight and normal eating behaviors and to treat psychiatric symptoms. The most typical medications prescribed are antidepressants; however, they should not be used in the acute phase of treatment for severely malnourished patients. Selective serotonin reuptake inhibitors (SSRIs) are frequently used for patients whose depressive, obsessive, or compulsive symptoms persist in spite of or in the absence of weight gain. However, studies have not shown SSRIs to be effective for purposes of restoring weight or preventing relapse (Kuo, 2006). A further description of the use of SSRIs is included in the "Antidepressants and the Risk of Suicidal Behavior" section of the *Collection*.

Unproven Treatments

Unproven treatments for anorexia patients cited by the APA (2000) include:

- *Individual psychotherapy* – The efficacy of this form of treatment remains uncertain. No controlled studies have reported whether cognitive behavioral psychotherapy or other specific psychotherapeutic interventions are effective for nutritional recovery. Clinicians generally agree that psychotherapy is almost always beneficial during acute refeeding; however, in starving patients, who are often negative, obsessional, or mildly cognitively impaired, this form of treatment may often be ineffective. Psychotherapy may, however, be a useful method in treating any co-occurring disorders.
- *Group psychotherapy* – Practitioners have found that group psychotherapy programs conducted during an acute phase among patients with anorexia may be ineffective and can sometimes have negative therapeutic effects, as patients may compete for who can be thinnest or exchange countertherapeutic techniques on simulating weight gain or hiding food.
- *12-Step Programs* – No data regarding the short- or long-term effectiveness of this form of treatment is available. However, use of addiction-based programs in isolation is discouraged, as patients will deprive themselves of the benefits of conventional treatments and may also be exposed to misinformation by well-meaning individuals in these groups.
- *Somatic treatments* – Vitamin and hormone treatments, electroconvulsive therapy, and other somatic treatments have been tried in uncontrolled studies. However, none has shown to have any significant therapeutic value to anorexic patients.

Contraindicated Medications

Tricyclic antidepressants should be avoided in underweight patients and in patients who are at risk for suicide (APA, 2000).

BULIMIA NERVOSA

An estimated 1.1 to 4.2% of females have bulimia nervosa in their lifetime (NIMH, 2001). Congress has recently heard testimony that 13% of high school girls reportedly purge. (Maier, 2003). According to the *American Journal of Psychiatry* researchers, there is one male for every 8 to 11 females with bulimia. (ANRED, Males with Eating Disorders, 2005). Bulimia generally affects children in their teens, although there are cases reported for children much younger (International Eating Disorder Referral Organization, 1999). There are two subtypes of bulimia: purging and non-purging (exercise and restrictive food intake). Table 5 lists the symptoms of the disorder.

Treatment Methods

The primary goal of treatment with bulimic patients is to reduce or eliminate binge eating and purging behavior. According to NIMH (2001) nutritional rehabilitation, psychosocial intervention, and medication management strategies are therefore often used. Specifically, treatment includes the

establishment of regular, non-binge meals, improvement of attitudes related to the disorder, encouragement of healthy but not excessive exercise, and resolution of any co-occurring disorders such as anxiety or mood disorders.

Table 5

Symptoms of Bulimia Nervosa

- Recurrent episodes of binge eating, characterized by consumption of excessive amounts of food within a discrete period of time and lack of control over eating during the episode.
- Recurrent inappropriate responses to binges in order to prevent weight gain, such as self-induced vomiting or misuse of laxatives and other medications (often referred to as purging), fasting, or excessive exercise.
- The binge eating and compensatory behaviors both occur, on average, at least twice a week for three months.
- Self-evaluation is unduly influenced by body shape and weight.

Source: National Institute of Mental Health (NIMH), 2001.

Evidence-based Treatments

The following treatments are most commonly utilized in bulimic patients:

- *Cognitive behavioral psychotherapy* – This form of psychotherapy, when specifically directed at the eating disorder symptoms and underlying cognitions, is the intervention for which there is the most evidence of efficacy. It has been found to lead to significant reductions in binge eating, vomiting, and laxative abuse (APA, 2000).
- *Pharmacological treatments* – Bulimia nervosa patients are typically more responsive to pharmacologic interventions than are anorexia nervosa patients (Berkman, et al., 2006). Psychotropic medications, primarily antidepressants such as the selective serotonin reuptake inhibitors (SSRIs), have been found to be helpful in treating bulimia. These medications are intended to reduce the frequency of disturbed eating behaviors, as well as to alleviate symptoms of comorbid disorders. Studies have found the use of antidepressants to be effective in reducing binge/purge behavior by a range of 50 to 75%. Most clinicians recommend continuing antidepressant therapy for a minimum of six months and preferably for a year (APA). Pharmacotherapy has been found to be especially effective for patients with symptoms of depression or anxiety for those who have not responded well to psychotherapy alone. It may also help to prevent relapse (NIMH, 2001).
- *Combined treatments* – There is generally a better response to cognitive behavioral therapy than pharmacotherapy; however, the combination of these two methods has been found to be superior to either alone (APA).

Unproven Treatments

- *Individual psychotherapy* (interpersonal, psychodynamic, and psychoanalytic approaches) – While there is support for these approaches in case studies and reports, the efficacy of these methods has not been supported by scientific data. When directly compared to cognitive behavioral therapy, most have been found in short-term trials to be less effective (APA, 2000).
- *Behavioral therapy* – Evidence regarding the efficacy of this form of treatment is conflicting. Specifically, exposure treatment has not been found to have additive benefits over a foundation of cognitive behavioral therapy (APA).

- *12-Step Programs* – Addiction-based programs are not recommended as the sole treatment approach for patients with bulimia nervosa, as they do not attend to nutritional considerations or behavioral deficits (APA).

Contraindicated Medications

- Bupropion has been associated with seizures in purging bulimic patients and therefore should not be used in this population (APA, 2000).
- Monoamine oxidase inhibitors (MAOIs) are also potentially dangerous in patients with chaotic binging and purging; therefore their use should be limited (APA).

BINGE EATING DISORDER

Between two to five percent of Americans experience binge-eating disorder in a 6-month period (NIMH, 2001). Table 6 outlines the symptoms of binge-eating disorders.

Table 6

Symptoms of Binge Eating Disorder

• Recurrent episodes of binge eating, characterized by consuming excessive amounts of food within discrete periods of time and a sense of lack of control. • Marked distress about the binge-eating behavior. • The binge eating occurs, on average, at least two days a week for six months. • The binge eating is not associated with regular use of inappropriate compensatory behaviors, such as purging, fasting, or excessive exercise.

Source: National Institute of Mental Health (NIMH), 2001.

Binge eating disorder, while listed separately in the *DSM-IV* appendix, has not yet been recognized by the American Psychiatric Association as an official psychiatric diagnosis. Researchers have found that the disorder, while relatively rare, is common among patients seeking treatment for obesity and occurs much more frequently in adults than adolescents (APA, 2000).

Treatment Methods

The treatment goals and strategies for binge eating disorder are similar to those for bulimia nervosa. The primary difference in the two disorders is that patients with binge eating disorder present difficulties associated with being overweight, rather than being malnourished. Thus, they suffer from medical ailments which are different from those associated with overweight populations, such as high blood pressure, high blood cholesterol levels, diabetes, and heart disease (APA, 2000). Consequently, the treatment strategies tend to diverge only in the nature of medical interventions.

Little research exists on effective treatment strategies for binge eating disorder (NIMH, 2001). The creation of a diagnostic classification will allow this group of patients to be studied further from a clinical research perspective, and thus allow them to receive more accessible and appropriate treatment (Brewerton, 1997). Research is being conducted to assess treatments that show both decreases in binge eating and in weight for overweight individuals. Some preliminary data shows that SSRIs, tricyclic antidepressants, and anticonvulsants are efficacious in reducing bingeing episodes in weight (Berkman, et al., 2006). Cognitive behavioral therapy and various forms of self-help also have been effective at reducing binge eating, but less effective at controlling weight (Berkman, et al.). Effective treatments disrupt the binge-eating cycle and establish a structured

pattern of eating allow the patient to experience less hunger, deprivation, and negative feelings about food and eating. Additionally, hunger and negative feelings, which most likely to prompt binge eating, must also be reduced, decreasing the frequency of binges (NIMH).

Unproven Treatments

Unproven treatments for binge eating disorder patients cited by the APA (2000) include:

- *Nutritional rehabilitation and counseling* – Restrictive diets employed with group behavioral weight control programs have been associated with substantial initial weight loss, but are often less effective during or following the refeeding stage. Weight is commonly regained during this period.
- *Psychotherapy* – Behavior therapy, cognitive behavioral therapy, and interpersonal therapy have all been associated with binge frequency reduction rates. However, deterioration follows during the follow-up period for each of these types of therapy.
- *Addiction-based and self-help organization programs* – No systematic outcome studies of these programs are available.
- *Pharmacological treatments* – Antidepressants are typically used in binge eating disorder and related syndromes. However, there is a very high placebo response rate (around 70%), and patients tend to relapse after medication is discontinued.
- *Combined psychosocial and medication treatments* – The combination of medication with psychotherapy has been associated with significantly more weight loss than psychotherapy alone.

Cultural and Other Considerations

A wide range of demographics has been observed in eating disorder patients (ADA, 2001). The disorders appear to be more common among Native Americans, while equally prevalent in Hispanic and Caucasian populations and less common among Asians and African Americans (APA, 2000). Researchers have also found that African American females are more likely to develop bulimia nervosa than anorexia and are more likely to purge with laxatives than by vomiting (APA).

Because values concerning weight and shape vary among cultures, clinicians must be mindful of patients' specific views on beauty, acceptance, and what it means to be "perfect" in the modern world (APA, 2000). Patients who are minorities or are from non-Western or other cultural backgrounds are likely to display different weight and shape concerns.

It is also important to note that anorexia nervosa is detectable in all social classes. Thus, higher socioeconomic status does not appear to be a major factor in the incidence of these disorders, as once was surmised by clinicians (ADA, 2001).

One recent survey of Internet websites indicates that, by a 2003 count, approximately 500 sites offer pro-anorexia and bulimia forums (Pirisi, 2005). An estimated four out of ten teenagers with eating disorders visit these pro-disorder sites (Peebles, as cited by McCook, 2005). These sites are a recent, but disturbing phenomenon.

Males with an eating disorder often go undiagnosed due to their embarrassment about not living up to the image of the ideal male body. In particular, males who binge or overeat compulsively may go undiagnosed, given society's unwillingness to accept such behavior in a male (Knowlton, 1995).

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Organizations/Weblinks

Academy for Eating Disorders (AED)
6728 Old McLean Village Drive - McLean, VA 22101
703-556-9222
http://www.aedweb.org

Caring on line
http://www.caringonline.com

Dominion Hospital
2960 Sleepy Hollow Rd. - Falls Church, VA 22044
703-536-2000
http://www.dominionhospital.com

Eating Addictions Anonymous
202-882-6528
http://www.eatingaddictionsanonymous.org

Eating Disorder Recovery Center
http://www.eating-disorder.com

Eating Disorders Coalition for Research, Policy & Action (EDC)
202-543-3842
http://www.eatingdisorderscoalition.org

EDReferral.com (Eating Disorder Referral and Information Center)
http://edreferral.com

Girl Power!
U.S. Department of Health and Human Services
http://www.thebodypositive.org/index.html

Gurze Books
http://www.gurze.com

Harvard Eating Disorders Center
Helping Your Child
http://www.hedc.org

James Madison University
University Health Center–http://www.jmu.edu/healthctr/eatingdisorder

Johns Hopkins Eating and Weight Disorders Program
Johns Hopkins Hospital
101 Meyer Building, 600 N. Wolfe St. - Baltimore, MD 21205
410-955-3863
http://www.hopkinsmedicine.org/jhhpsychiatry/ed1.htm

National Association of Anorexia Nervosa and Associated Disorders
847-831-3438
http://www.anad.org

National Eating Disorders Association
http://www.nationaleatingdisorders.org
800-931-2237

National Institute of Mental Health (NIMH)
http://www.nimh.nih.gov

Overeaters Anonymous
Northern Virginia
703- 823-6682
http://www.oanova.org

DC or Maryland
301-460-2800
http://www.oadcmetro.org

Recovery Center of Richmond
9323 Midlothian Turnpike – Richmond, VA 23235
804-560-5400
http://therapistunlimited.com/rehabs/US/VA/RICHMOND/Recovery+Center+of+Richmond

Society for Adolescent Medicine
http://www.adolescenthealth.org/virginia.htm

St. Joseph Medical Center
7601 Osler Drive - Townson, VA 21204-7582
410- 427-2100
http://www.sjmcmd.org

University of Virginia
Elson Student Health Center–http://www.virginia.edu/studenthealth/ailments/eatingdis.html
Health System–http://www.healthsystem.virginia.edu/uvahealth/peds_adolescent/edhub.cfm
Office of Health Promotion–http://www.virginia.edu/ims/forms/fit_eating-disorders.pdf

Virginia Action for Healthy Kids
General Information–http://www.ext.vt.edu/actionforhealthykids
Teacher Guide–http://www.ext.vt.edu/actionforhealthykids/resourceguide/resourceguide.html

Virginia Commonwealth University Health System
http://www.vcuhealth.org/Content.asp?PageID=P00748

Virginia Cooperative Extension
http://www.ext.vt.eduor

Virginia Tech Cook Counseling Center
http://www.ucc.vt.edu/eating.html